



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Masahiko YAMAMOTO et al.

Application No.: 10/724,207

Filed: December 1, 2003

Docket No.: 117914

For:

MAGNETIC MEMORY ARRAY, METHOD FOR RECORDING IN A MAGNETIC MEMORY ARRAY AND METHOD FOR READING OUT FROM A MAGNETIC

**MEMORY ARRAY** 

## INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- $\boxtimes$ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- $\boxtimes$ Relevance of non-English language reference Nos. 5 and 8 is discussed in the present specification.
- $\boxtimes$ The references were cited in a counterpart foreign application. An English language version of the foreign search report is attached for the Examiner's information.
- $\boxtimes$ 4. The present application was filed or entered the U.S. National Stage of the PCT after June 30, 2003. In accordance with the June 11, 2003, Notice waiving the requirements of 37 CFR §1.98(a)(2)(i), copies of any U.S. patents and patent application publications are not attached.
- $\boxtimes$ English-language Abstracts of non-English language reference Nos. 5 and 7 are attached hereto.

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6. A computer-generated English translation of the following Japanese Patent Publication has been obtained from the website of the Japanese Patent Office ([http://www.jpo.go.jp]), and is attached, but has not been reviewed for accuracy. See References 5 and 7.

Respectfully submitted,

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JAO:JSA/mxm

Date: May 3, 2004

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Sheet	1	of	1	

Form PTO-1449 US Dept. of Commerce (REV. 8-83) PATENT & TRADEMARK OFFICE			ATTY DOCKET NO. 117914			APPLICATION NO. 10/724,207					
INFORMATION DISCLOSURE STATEMENT											
MAN 0 3 2004 U.S. PATI			APPLICANTS Masahiko YAMAMOTO et al.								
			FILING DATE December 1, 2003			GROUP 2818					
U.S. PATENT DOCUMENTS											
EXAMINER INITIAL		DOCUMENT NUMBER	I	DATE	NAME			CLASS	SUB CLASS		
	1	US 6,351,410 B1	2/20	6/2002	NAKAO et al.						
	2	US 5,475,304 A	12/12/1995		PRINZ						
	3	US 6,391,483 B1	5/21/2002		ZHU et al.						
	4	<del>US</del> 2003/0107849 A1	6/12/2003		IKARASHI						
	1	FOREIC	SN PA	ATENT DO	CUMENTS			· · · · · · · · · · · · · · · · · · ·			
		DOCUMENT NUMBER	]	DATE .	COUNTRY			CLASS	SUB CLASS		
	5	JP A 2002-73681 w/ Abst & Trans	3/12/2002		Japan						
	6	WO 03/032336 A1	4/17/2003		WIPO						
1 321	7	JP A 2003-273331 w/ Abst & Trans	9/26/2003		Japan						
		·									
		OTHER DOCUMENTS (Inc	cludin	g Author,	Title, Date, Pertinent Pages,	etc.)					
	8	COWBURN et al. "SINGLE-DOMAII Review Letters, Volume 83, Number 5				nerican Ph	ysical S	Society, Phy	sical		
	9	ZHU et al. "ULTRAHIGH DENSITY VERTICAL MAGNETORESISTIVE RANDOM ACCESS MEMORY (INVITED)," Symposium on Magnetic Technology for a Single Chip Computer, Journal of Applied Physics, Volume 87, Number 9, May 1, 2000, pp. 6668-6673.									
	10	LI et al. "FLUX CLOSURE STRUCTURES IN COBALT RINGS," The American Physical Society, Physical Review Letters, Volume 86, Number 6, February 5, 2001, pp. 1102-1105.									
	13	KLÄUI et al. "VORTEX CIRCULATION CONTROL IN MESOSCOPIC RING MAGNETS," American Institute of Physics, Applied Physics Letters, Volume 78, Number 21, May 21, 2001, pp. 3268-3270.									
	12	SCHNEIDER et al. "MAGNETIC SWITCHING OF SINGLE VORTEX PERMALLOY ELEMENTS," American Institute of Physics, Applied Physics Letters, Volume 79, Number 19, November 5, 2001, pp. 3113-3115.									
EXAMINER		DATE CONSIDERED							<del>-</del>		
Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.											

Date: May 3, 2004